LEAD 20

20W Tube-Driven Amplifier

User Manual

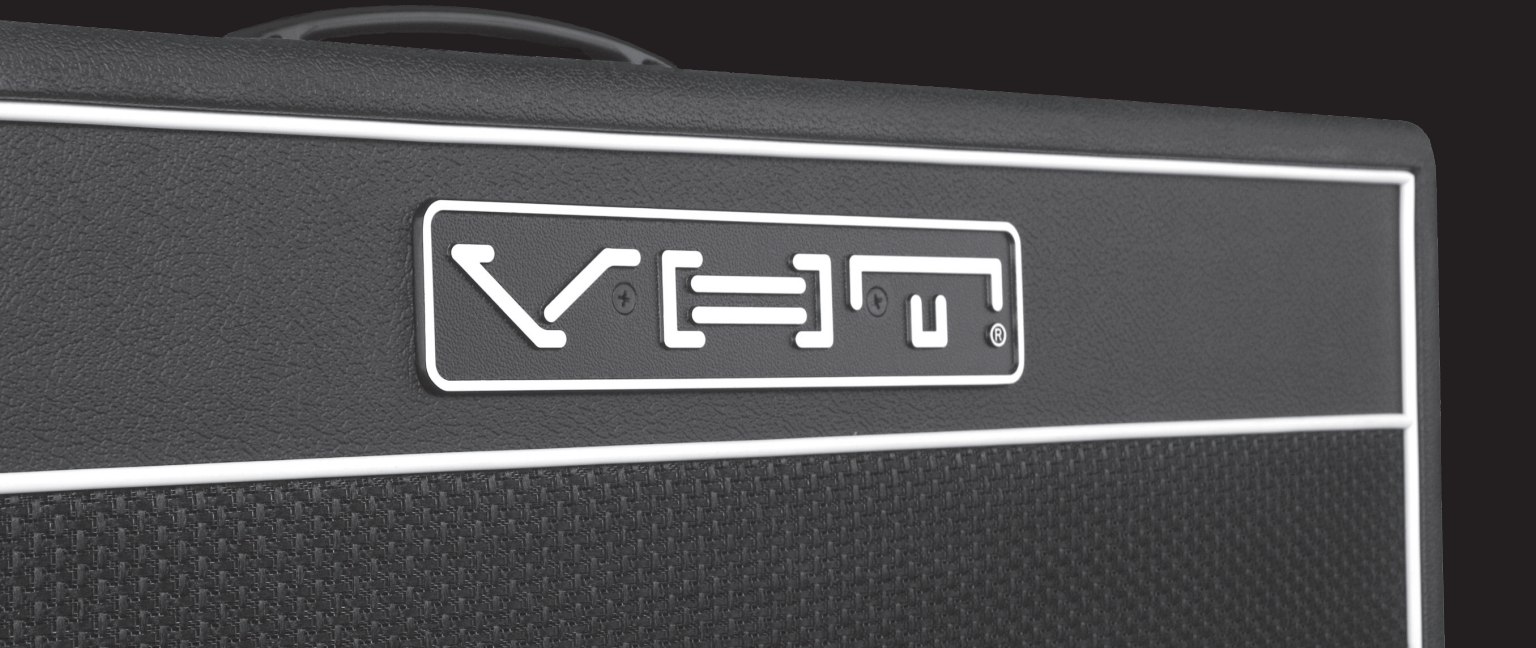

Table of Contents

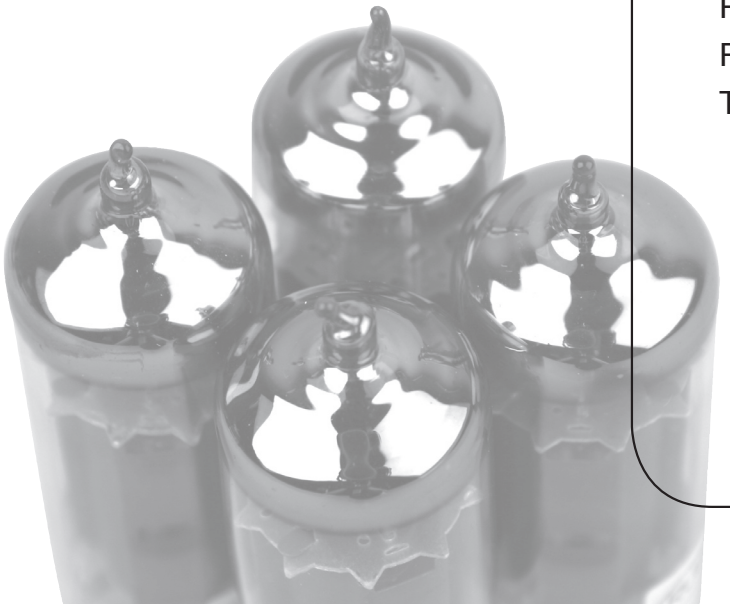

Table of Contents.....3
Product Safety Information.....4
Panel Functions.....5
Technical Specifications.....9

Product Safety Information

WARNING!

Please read ALL Safety & Operating Instruction BEFORE using this product.

CAUTION: To avoid the risk of fire or electric shock, please do not expose this product to rain or moisture. Dangerous high voltages are present inside the enclosure. Do not open the cabinet or remove either the front or the back cover. Refer servicing to qualified personnel only.

Power Sources
This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply in your home, consult your product dealer or local power company.

Insertion Warning & Liquid Spilling
Never insert objects of any kind into this product, as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product. The apparatus shall not be exposed to dripping or splashing and that no object filled with liquid, such as vases, shall be placed on the apparatus.

Servicing
Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. No user serviceable parts inside. Refer all servicing to qualified service personnel.

Heat
The product should be placed away from heat sources, such as radiators, stoves, or other products (including amplifiers) that produce heat.

Cleaning
Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Safety Check
Upon completion of any service repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

Panel Functions

(Please refer to Fig. 1 and Fig. 2 for details.)

A. THE FRONT PANEL

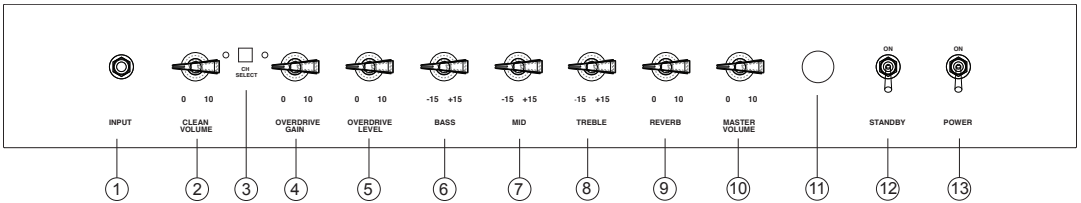

Fig. 1: The Front Panel

1. **Input:** Used to connect the signal output from an electric guitar. (Use a shielded cable with 1/4” mono plug.)

2. **Clean Volume:** Volume adjustment for Clean Channel. Turn this knob clockwise increases the overall sound level.

3. **Channel Select:** Used to activate the Drive Channel.

4. **Overdrive Gain:** Adjusts the signal distortiion level in the Drive Channel. Use this control in conjunction with Overdrive Level (5) to adjust the loudness of the Overdrive Channel.

5. **Overdrive Level:** Adjusts the volume level of Overdrive Channel.

6. **Bass:** Adjusts the low frequency level. Turn this knob clockwise to boost the bass sound, counter clockwise to cut the bass sound accordingly. Center position (straight up) provides no cut or boost.

7. **Mid:** Adjusts the middle frequency level. Turn this knob clockwise to boost the middle sound, counter clockwise to cut the middle sound accordingly. Center position (straight up) provides no cut or boost.

8. **Treble:** Adjusts the high frequency level. Turn this knob clockwise to boost the treble sound, counter clockwise to cut the treble sound accordingly. Center position (straight up) provides no cut or boost.

9. **Reverb:** Adjusts the amount of sound reverberation/reflection effect to the guitar's signal.

10. **Master Volume:** Overall volume adjustment for both channels. Turn this knob clockwise increases the overall sound level.

11. **Power Indicator:** LED will be lit when the amplifier power is on.

12 . **Standby Switch**: When this Switch is in the upward position (On), this mode keeps tubes powered-up and avoids delay times (Time it takes for tubes to warm up) for guitar players between practice sessions. It also lengthens tube lifetime performance.

13. **Power Switch:** Use this switch to turn the amplifier on or off. *

** The power/mains switch is a one pole switch. The apparatus is not completely disconnected from the power/mains when turning the switch "off". The power/mains plug or appliance coupler is the disconnect device which must remain readily operable.*

B. THE REAR PANEL

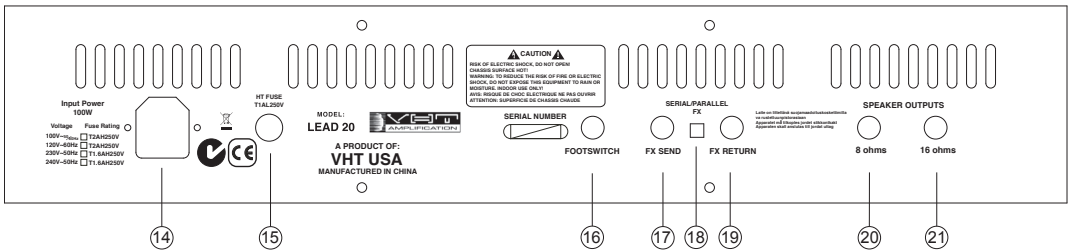

Fig. 2: The Rear Panel

14. **Power IEC Socket:** Use the included power cord with this unit in accordance with the voltage and frequency ratings listed on this manual and rear panel of this amplifier.

15. **HT Fuse:** The fuse is the amplifier's protection device. In the event of an over power malfunction, the fuse will blow, disconnecting the power source and the amplifier, therefore preventing the amplifier from severe damage. If the amplifier shuts down while in use, unplug the amplifier, open the fuse holder, check the fuse and replace if necessary (Replaced fuse must be at the same rating voltages and current). Consult a qualified service technician if problem continues.

16. **Footswitch:** Controls Clean/Overdrive Channel Select and Reverb On/Off with dual footswitch. (Optional)

17: **FX Send:** This jack is used to send signal from the amp to external effects or signal processing devices.

18. **Serial/Parellel FX:** Allows you to select the desired type of effects loop, parallel or serial.

19. **FX Return:** This jack is used to receive signal from an external effects or signal processing devices.

20: **Speaker Output (8 ohm):** Used to connect an external speaker from the amplifier's output (min 8 Ω), this switches out internal speakers.

21: **Speaker Output (16 ohm):** Used to connect an external speaker from the amplifier's output (min 16 Ω), this switches out internal speakers.

Technical Specifications

Name/Model	VHT 20W Tube-Driven Amplifier / LEAD 20
Power Requirements & Consumption	120VAC, 60Hz ; 100/115VAC, 50/60Hz ; 220VAC/230VAC/240VAC, 50/60Hz
Total Output Power	20W RMS
Amp Type	Tube Amp
Power-Amp Section	(2) EL84 Tubes
Pre-Amp Section	(4) 12AX7 Tubes
Speaker	1 x 12” Celestion G12 H30 (16 ohms)
Controls	Clean Volume, Overdrive Gain, Overdrive Level, Reverb, Master Volume
EQ	3-Band - Treble, Mid, Bass
Reverb	Accutronics/Reverb
Channels	Dual with Drive Select - Clean and Overdrive
Jacks	1/4” Input, 1/4” FX Send, 1/4” FX Return, Serial Parallel FX Switch, 1/4” Footswitch Input, 1/4” 8 ohm Speaker Output, 1/4” 16 ohm Speaker Output
Cabinet	Finger Jointed Birch
Cosmetics	Black Tolex and Black Grille Cloth
Dimensions (H x W x D)	18.25” x 23.25” x 10.5” (464mm x 591mm x 267mm)
Net Weight	53.5 lbs (24.3 kg)

Notes

Notes

Limited Warranty Information

This amplifier is warranted, to the original Purchaser, to be free from defects in material and workmanship for a period of one (1) year, excluding the Tubes, which are warranted for ninety (90) days, from the original date of purchase.

The manufacturer shall, at its option, either repair or replace the defective product if the product is returned to the original place of purchase. If any product returned is not defective within this warranty, the manufacturer shall so advise the Purchaser and thereafter shall dispose of said product in accordance with the Purchaser's instructions and at the Purchaser's cost. This warranty is not transferable by the Purchaser.

The warranty shall not apply to wearable parts, these items include, but are not limited to, amplifier knobs, feet, and handles.

The warranty shall not apply, if the product has been misused or damaged as a result of neglect, abuse, alteration, improper handling, unauthorized repair or modification, accident or causes external to the product, such as, but not limited to, excessive heat or humidity.

The manufacturer's sole and exclusive maximum liability for any claim by the Purchaser shall not exceed the wholesale value of the product. In no event shall the manufacturer be liable for any indirect, incidental, collateral, exemplary, or consequential damages of losses arising out of the Purchaser's purchase of the product. The above limitations may not apply in some states (U.S.), international regions or countries.

VHT
AMPLIFICATION

MADE IN CHINA